

***HELIUS HISPANICUS* LACKSCHEWITZ, 1928 (DIPTERA:
TIPULIDAE) NEW TO BRITAIN**

ALAN E. STUBBS

181 Broadway, Peterborough, Cambridgeshire PE1 4DS.

On 19.vi.1989 a visit was made to the western end of Axmouth–Lyme Regis National Nature Reserve, Devon. Here there are extensive coastal cliffs, in the lower part with springs, seepages and landslips in Triassic marls. Specimens of a *Helius* were found with an exceptionally long proboscis and darkened wing tips, readily recognizable as a species that I had seen in Spain. Reference to the type description, which includes illustrations of the male genitalia, confirms that the species is *Helius hispanicus*, a surprising addition to the British fauna.

The genus is very distinctive in having an elongate blunt-ended rostrum (slender pointed in *Geranomyia*). There are three *Helius* previously known in Britain, these being widespread in Britain and also in Europe. In these species the rostrum is about twice as long as the head and the wings are clear except for the presence of a darkish stigma in *H. longirostris* (Meig.) and *H. pallirostris* Edw.; *H. flavus* (Walker) lacks a coloured stigma. They occur in marshes and at pond margins, usually with tall herbage, and in the case of *H. longirostris* and *H. flavus* they can also occur at seepages in open or shaded habitat.

H. hispanicus has a rostrum about three times as long as the head (Figure 1). Apart from the presence of gently darkened wing tips, the stigma is distinctly darkened and there is a faint dark stripe along the hind edge of the second basal cell. The male

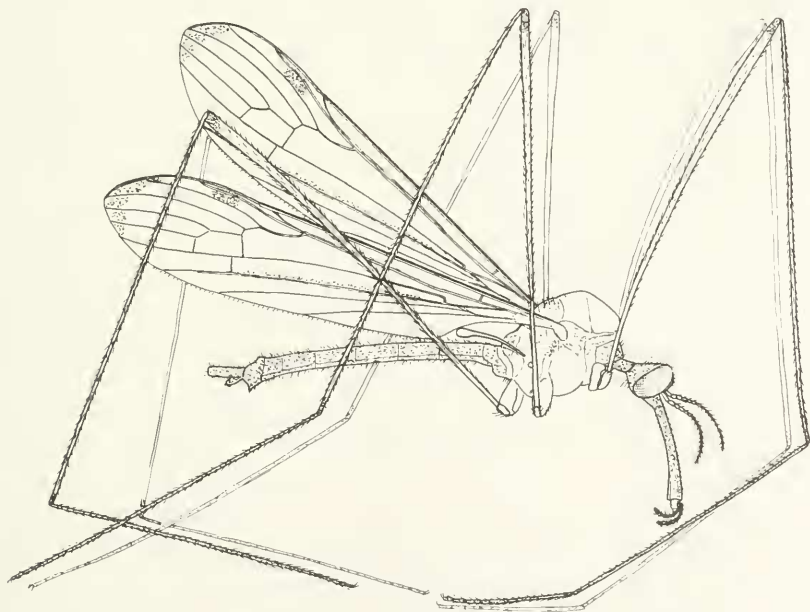


Fig. 1. *Helius hispanicus*, lateral view of male.

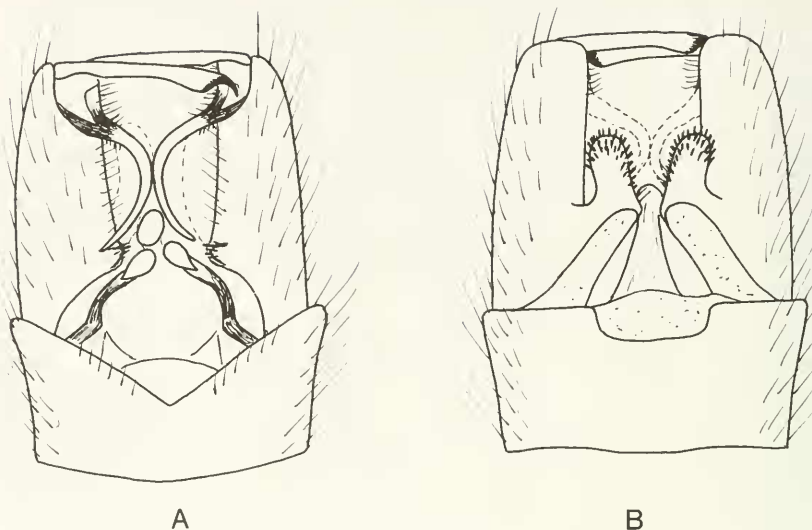


Fig. 2. *Helius hispanicus*, male genitalia: (A) dorsal; (B) ventral.

genitalia (Figure 2) have an elongate smooth inner dististyle, lacking the comb of spines found in *H. longirostris* and *H. flavus* and much longer than in *H. pallirostris*. Apart from these definitive characters, the general appearance is as follows. The rostrum, antennae, abdomen and male genitalia are predominantly blackish. The head is dark grey. The thorax is a drab orange brown with a vaguely darker pleural stripe and the postnotum is blackish. The female ovipositor has the cerci and much of the sternal valves orange brown. The coxae are yellowish, as are all but the apices of the femora and tibiae. The tarsi are blackish. The wing length is about 8 mm.

In Devon the habitat was unusual for *Helius* in that it comprises small streamlets on quite steep slopes. A total of two males and a female were swept from two separate streams about 300 m apart. The first location was a small spring-fed stream out of the Triassic marl with *Juncus inflexus* and *Juncus articulatus* predominant in a shallow ditch-like gully. Much of the slope was sparsely vegetated but in the mid-morning sun the exact position was partly shaded by some *Salix* bushes. The second location was on open heavily landslipped cliffs in the Triassic marl. Here a spring-fed stream on a mud flow was lined with *Epilobium hirsutum* and *Equisetum telmateia*, with some grasses adjacent to bare mud flow margins.

The type material was from Algeciras, collected on 12–20 May by Czerny. This location is at the southern tip of Spain, near Gibraltar. I have collected in south-west Spain and in the Algarve of Portugal without meeting *H. hispanicus*. However, I did find some males swarming at sunset at Jaca on the south side of the Pyrenees (only an uninteresting ditch provided potential breeding habitat in the immediate vicinity) and also found it by small streams in the Sierra Nevada area of southern Spain. As a whole the Iberian Peninsula is still poorly recorded for Tipulidae, as is western France. For the latter country, Pierre (1924) did not appear to be aware of this rather distinctive species (described 4 years later). Lackschewitz & Pagast (1942) in their Palaearctic review only give Andalusia as the known distribution. I am not

aware of *H. hispanicus* being taken elsewhere in Europe though it has been recorded in the Eastern Palaearctic (Oosterbroek, pers. com.).

The British crane fly fauna is mainly that of the temperate climatic belt of Europe, plus some northern and a few alpine species. An Iberian, and hence Lusitanian element, seems to be unprecedented in this group of insects.

The discovery of *H. hispanicus* stems from a review of the entomological value of soft rock coasts in Britain. The available information indicates marked geographical assemblages characterizing particular coasts, with the geology determining site characteristics. The climatic advantage of south-facing cliffs, with extensive uneven bare ground, enables a number of warmth-loving insects to persist on the edge of their European range. Several rare crane flies, as well as various other insects, are markedly restricted in distribution on soft rock cliffs. Whilst it would be unwise at this stage to conclude that a single section of cliff in Devon is the only plausible site for this particular crane fly, the equivalent site options would seem few in view of its apparent absence from the other sections of coast that have been surveyed for crane flies over the years.

For the visitor unfamiliar with the habitat described, the terrain has potential hazards including mud flows, fissures and rock falls.

My thanks are passed to Dr Piotr Oosterbroek for information on the Palaearctic distribution.

REFERENCES

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BOOK REVIEWS

Insect pest management by D. Dent, Wallingford, Oxon, CAB International, 1991, xviii, 604 pages, paperback, £24.50, hardback £50.—Although most members of this society and most readers of this journal might consider themselves ‘naturalist’ entomologists rather than ‘applied’ entomologists, we should not forget that application of insect study to the control of insect pests is one of the most important uses to which our knowledge can be put. Each year huge sums of money are spent in trying to prevent the massive and sometimes crippling depredations of insects in developing countries. Even greater sums are spent by the developed nations of the world in trying to increase the yield and profitability of their crops. Relatively huge sums of money are also spent each year by the British public in search of greater aesthetic appeal in their gardens.

For those entomologists studying pest species, the book has an obvious appeal, but in fact many other entomologists would find the book an interesting and informative text. Some of the chapters are of only limited general appeal, such as those on ‘quarantine, legislation and politics’ and ‘integrated insect pest management’, but others like ‘sampling, monitoring and forecasting’, ‘host plant resistance’ and ‘natural enemies’ are relevant to any study of entomology. What might seem such a daunting chapter as ‘yield loss assessment’ will, in fact, find wider application in